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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/601,700 | 06/24/2003 | Christopher L. Schardl | 50229-343 | 7548 |

7590 12/29/2005
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EXAMINER

GEBREYESUS, KAGNEW H

ART UNIT PAPER NUMBER

1652

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,700

Applicant(s)

SCHARDL ET AL.

Examiner

Kagnew H. Gebreyesus

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 1. Claims 1 in part, 4 and 21-25 in part, are drawn to a nucleotide sequence consisting or complementary to ORF 1 encoding an epoxidase within SEQ ID NO: 15, vectors, host cells and method of production classified in class 435, subclass 120.
 2. Claims 1 in part, 5, 6 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 2 encoding a class-v-aminotransferase within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
 3. Claims 1 in part, 7, 8 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 3 encoding a pisatin demethylase within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
 4. Claims 1 in part, 9 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 5 encoding an aspartate kinase within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
 5. Claims 1 in part, 10-12 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 6 encoding an isopenicilline N synthase within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.

6. Claims 1 in part, 13 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 7 encoding an ornithin decarboxylase SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
7. Claims 1 in part, 14 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 8 encoding a γ -type pyridoxal phosphate enzyme within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
8. Claims 1 in part, 15, 16 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 9 encoding a cyclohexon oxidase within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
9. Claims 1 in part, 17 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF 4 within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
10. Claims 1 in part, 20 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to three or more ORFs within SEQ ID NO: 15, host cells and method of production classified in class 435, subclass 120.
11. Claims 2, 3 in part, 4 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF¹ encoding an epoxidase within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.
12. Claims 2, 3 in part, 5, 6 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF² encoding class-v-aminotransferase within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.

13. Claims 2, 3 in part, 7, 8 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF³ encoding a pisatin demethylase within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.
14. Claims 2, 3 in part, 7, 8 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF⁴ encoding an unknown gene product within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.
15. Claims 2, 3 in part, 9 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF⁵ encoding an aspartate kinase within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.
16. Claims 2, 3 in part, 10-12 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF⁶ encoding an oxidoreductase within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.
17. Claims 2, 3 in part, 13 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF⁷ encoding an ornithin decarboxylase within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.
18. Claims 2, 3 in part, 14 and 21-25 in part are drawn to a nucleotide sequence consisting or complementary to ORF⁸ encoding γ -type pyridoxal phosphate enzyme within SEQ ID NO: 16, host cells and method of production classified in class 435, subclass 120.

19. Claim 3 and 21-25 in part is drawn to a nucleotide sequence consisting or complementary to ORF⁹ encoding a cyclohexon oxidase within SEQ ID NO: 17 host cells and method of production classified in class 435, subclass 120.
20. Claim 3 and 21-25 in part is drawn to a nucleotide sequence consisting or complementary to ORF¹⁰ encoding an unknown enzyme within SEQ ID NO: 17 host cells and method of production classified in class 435, subclass 120.

The DNA of Group 1-20 each comprise a chemically unrelated structure having different sequences capable of separate manufacture, use and effect. Each DNA encodes a separate polypeptide having a unique enzymatic activity and with distinct immunogenicity. In addition each ORF is able to hybridize with a probe. Therefore the search and examination of each sequence in Groups 1-18 in one patent application would result in undue burden, since the searches for all the groups are not co-extensive, since the searches are in different classifications, and involve different field of search. Each of the of the inventions requires a separate patent and non-patent literature search requiring a different text search for each group and thus co examination of the inventions in groups 1-20 would be a serious burden on the examiner.

1. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
2. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.43).


3. Applicant is reminded that upon the cancellation of claims to a none elected invention the none elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48 (b) and by the fee required under 37 CFR 1.17 (i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kagnew H Gebreyesus whose telephone number is 571-272-2937. The examiner can normally be reached on 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Achutamurthy ponnathapura can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kagnew Gebreyesus Ph.D.
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PRIMARY EXAMINER
GROUP 1800
1600